VARIABILITY OF POPULATION CHARACTERISTICS OF THE GRASS FROG (RANA TEMPORARIA) WITHIN BELARUS

D. Mitsura, A. Khandohiy

Belarusian State University, ISEI BSU,
Minsk, Republic of Belarus
danikmic@gmail.com

In work data on variability some morphometric and phenetics features of structure of populations of a grass frog in territories of various biocenoses within Republic of Belarus are submitted. It is shown that various conditions of dwelling in different territories lead to change of genetic structure of populations. The general regularities for populations of grass frogs are confirmed.

Keywords: grass frog, morphometric variability, phenetic structure.

Studying of nature of variability of populations on continuous fragments of an area allows to estimate adaptive opportunities of a look, to establish spatial structure of its area, to reveal the landscape and reagent parameters of populations and major factors defining regularities of variability of populations in natural and anthropogenic landscapes.

The grass frog is one of the dominating types of a batrachofauna of Belarus. The expressed polymorphism and genetic determinancy of a number of signs and also territorial conservatism and high number is characteristic of this species of amphibians.

Own researches were conducted in the territory of three reservoirs within 2017–2018 field seasons. Reservoirs differ in a number of parameters: on the area, depth, a specific variety of flora and fauna, degree of industrial impurity, anthropogenic loading, etc.

96 individuals were caught and analyzed. Measurements were taken by standard methods. On the basis of the taken measurements calculations of age structure of populations were made.

The most part of the studied individuals is made by two-year-old frogs, the low occurrence of one-year-old individuals is also noted.

Generally a ratio of the main proportions of a body at the studied individuals slightly change, proceeding from sizes of morphological indexes. Thus, a ratio of length of a body to shin length (L./T.) – in 2017 equals 1,94 and 1,88 in 2018. A ratio of length of a body to head length (L./L.c.) – in 2017 made 3,55, in 2018 – 3,51.

Frequency of occurrence of various determined phenotypes according to the drawing of a back to a certain extent characterizes genetic structure of populations. It should be noted that the phenotype of an individual represents various combinations of separate hair dryers. Therefore the expressed geographical variability of genetic structure of populations is noted.

Distinctive feature of phenoshapes of the studied populations is the high frequency of Maculate hair dryers (32,2%), Hemimaculate (27%) and quite low frequency of Hemipunctata hair dryers (9,3%), Burnsi (9,3%), Striata (3,1%). Data demonstrate that various conditions of dwelling lead to transformation of genetic structure of populations.

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